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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,984	04/12/2004	Tetsuya Miyazaki	118119	2569
25944 7590 04/09/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/821,984

Applicant(s)

MIYAZAKI, TETSUYA

Examiner

Devon C. Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/31/07 has been entered.

### ***Claim Rejections - 35 USC § 102***

2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3) Claims 1-3, 7-15, 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Osada et al (5230549).

In re claim 1, 7-15, 17, 19-20, Osada et al provides a braking system for a vehicle, comprising: a braking device which puts a brake on a vehicle (figure 1); an operating device (11) which includes an operating member that is operated by a driver of the vehicle in a braking force increasing direction, that is, an operating direction in which a braking force of the braking device is increased or in a braking force decreasing direction, that is, an operating direction in which the braking force of the braking device is decreased; and a control device (13) which decides a target control value (figure 4) for controlling the braking device based on an operation state amount and operation state of the operating member and which controls the braking device based on the decided target control value, wherein the control device includes an operating direction-dependant target control value deciding portion, that determines a relationship between the operation state amount and the target control value based on the operation state of the operating member and uses the determined relationship to set at least one of: an increasing direction target control value that is the target control value when the operating member is operated in the braking force increasing direction, and a decreasing direction target control value that is the target control value when the operating member is operated in the braking force decreasing direction to values different from each other even when the is in the same operating state at least in part of a control range. Please note that figure 4 shows the target control value for different pedal depressions. As shown in figure 4, the decreasing direction target control value is

lower than the increasing direction target control value in a low brake force control range. Applicant uses the claim language "either" in the claim.

In re claims 2-3, see figure 4.

4) Claims 1, 4-5 and 7-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Oka et al (6568768)

In re claim 1, 7-20, Oka et al provides a braking system for a vehicle, comprising: a braking device which puts a brake on a vehicle (figure 2); an operating device (1) which includes an operating member that is operated by a driver of the vehicle in a braking force increasing direction, that is, an operating direction in which a braking force of the braking device is increased or in a braking force decreasing direction, that is, an operating direction in which the braking force of the braking device is decreased; and a control device (figure 16) which decides a target control value (figure 16) for controlling the braking device based on an operation state amount and operation state of the operating member and which controls the braking device based on the decided target control value, wherein the control device includes an operating direction-dependant target control value deciding portion, that determines a relationship between the operation state amount and the target control value based on the operation state of the operating member and uses the determined relationship to set at least one of: an increasing direction target control value that is the target control value when the operating member is operated in the braking force increasing direction, and a decreasing direction target control value that is the target control value when the

operating member is operated in the braking force decreasing direction to values different from each other even when the is in the same operating state at least in part of a control range. Please note that figure 16 shows the target control value for different pedal depressions. As shown in figure 16, the decreasing direction target control value is lower than the increasing direction target control value in a low brake force control range. Applicant uses the claim language "either" in the claim.

In re claims 4-5, see figure 16.

5) Claims 1, 4-5 and 7-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kusano et al (20030215179).

In re claim 1, 7-20, Kusano provides a braking system for a vehicle, comprising: a braking device which puts a brake on a vehicle (figure 1); an operating device (6) which includes an operating member that is operated by a driver of the vehicle in a braking force increasing direction, that is, an operating direction in which a braking force of the braking device is increased or in a braking force decreasing direction, that is, an operating direction in which the braking force of the braking device is decreased; and a control device (figure 4) which decides a target control value (either line) for controlling the braking device based on an operation state (S) amount and operation state of the operating member and which controls the braking device based on the decided target control value, wherein the control device includes an operating direction-dependant target control value deciding portion, that determines a relationship between the operation state amount and the target control value based on the operation state of the operating member and uses the determined relationship to set at least one of: an

increasing direction target control value that is the target control value when the operating member is operated in the braking force increasing direction, and a decreasing direction target control value that is the target control value when the operating member is operated in the braking force decreasing direction to values different from each other even when the is in the same operating state at least in part of a control range. Please note that figure 4 shows the target control value for different pedal depressions. As shown in figure 4, the decreasing direction target control value is lower than the increasing direction target control value in a low brake force control range. Applicant uses the claim language "either" in the claim.

In re claims 4-5, see figure 4.

#### ***Allowable Subject Matter***

6) Claims 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7) Applicant's arguments filed 3/21/07 have been fully considered but they are not persuasive. With the exception of claim 6, applicant's claims still read on a simple hysteresis braking curve. Please note that the Kusano reference has been added to further teach the commonly used curves in braking systems. Applicant's claim language uses the term "either" and each of the references meets at least one of the alternatively claimed features.

**Conclusion**

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C. Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571 )272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Devon C Kramer  
Primary Examiner  
Art Unit 3683

DK

*Devon C. Kramer*  
4/12/07